



*Swan and Canning Rivers Management Act 2006*

**PART 5**

**DETERMINATION OF DEVELOPMENT APPLICATION**

FILE NUMBER : 2016/4503  
APPLICANT : Old Salt Pty Ltd  
APPLICANT'S ADDRESS : *[Faded text]*  
LANDOWNER : Swan River Trust, Reserve 48325  
LAND DESCRIPTION : Lot 301 on Plan 47 451, Perth  
DEVELOPMENT : Installation of Moorings and Development of Barge Event Venue in Perth Water, Swan River  
VALID FORM 1 RECEIVED : 28 November 2016  
DETERMINATION : **APPROVAL WITH CONDITIONS**

The Old Salt proposal for the installation of moorings and development of a barge event venue in Perth Water, Swan River on Lot 301 on Plan 47451 (Reserve 48325, Swan River), Perth received on 28 November 2016 is APPROVED, subject to the following conditions:

1. Approval to implement this decision is valid for two (2) years from the date of the approval. If substantial on-site works have not commenced within this period, a new approval will be required before commencing or completing the development.
2. Approval is subject to the proponent implementing the works in accordance with the application submitted on 28 November 2016, and additional information provided on 11 January 2017.
3. The location of the barge as proposed by Old Salt is not approved.

**Prior to the commencement of works**

4. The applicant shall notify the Department of Biodiversity, Conservation and Attractions in writing not less than seven (7) days prior to the commencement of works (see **Advice Note 1**).
5. Prior to commencement of works, Final Mooring Location Drawings shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 2 and 18**).
6. Prior to commencement of works, a Visual Impact Assessment shall be submitted to the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 3 and 18**).

7. Prior to commencement of works, Final Barge Design Drawings shall be submitted, and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 4 and 18**).
8. Prior to commencement of works, a Noise Management Plan shall be submitted to the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 5 and 18**).
9. Prior to commencement of works, a Standard Operating Procedure for noise mitigation shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 6 and 18**).
10. Prior to commencement of works, Final Mooring Design Drawings shall be submitted, and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 7 and 18**).
11. Prior to commencement of works, a Moored Barge Contingency Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 8 and 18**).
12. Prior to commencement of works, a detailed Traffic Management Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 9 and 18**).
13. Prior to commencement of works, a Fuel Storage and Refuelling Management Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 10 and 18**).
14. Prior to commencement of works, a detailed Waste Management Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 11 and 18**).
15. Prior to commencement of works, a Construction Environmental Management Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 12 and 18**).
16. Prior to commencement of works, Site Investigations are to be conducted and a Sampling and Survey Program is to be established for approval by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 13 and 18**).
17. Prior to commencement of works, a Lighting Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 14 and 17**).
18. Prior to commencement of works, a River Reserve Lease is required to be granted in accordance with Section 29 of the *Swan and Canning Rivers Management Act 2006* (see **Advice Note 15**).

#### **During works**

19. All works shall be undertaken in accordance with the designs, drawings and plans approved under **Conditions 5, 7, 9, 10, 11, 12, 13, 14, 15, 16 and 17**.
20. The applicant shall take appropriate preventative measures during the works to ensure that no deleterious matter is allowed to enter the river.

#### **On completion of works**

21. Upon completion of the works, all waste materials, equipment and machinery shall be removed and the site cleaned-up to the satisfaction of the Department of Biodiversity, Conservation and Attractions.



## Ongoing

22. The predicted and actual noise levels from the barge must comply with the assigned levels under the Environmental Protection (Noise) Regulations 1997.
23. No discharges of solids or liquids from the barge or transfer vessel are permitted during operation.
24. A review of the Noise Management Plan must occur 12 months after commencement of operation of the barge, and a report on the review must be submitted to the Department of Biodiversity, Conservation and Attractions (see **Advice Note 16**).
25. Reporting on the findings of the Sampling and Survey Program is to be submitted to the Department of Biodiversity, Conservation and Attractions annually in accordance with the Sampling and Survey Program approved under **Condition 16** (see **Advice Note 17**).

## ADVICE TO APPLICANT

1. Notification of commencement of work and plans can be emailed to [rivers.planning@dpaw.wa.gov.au](mailto:rivers.planning@dpaw.wa.gov.au).
2. Final Mooring Location Drawings required under **Condition 5** are to be endorsed by the Department of Transport, City of Perth and the Metropolitan Redevelopment Authority prior to submission to the Department of Biodiversity, Conservation and Attractions.

The moorings and barge location is expected to be within the existing courtesy mooring area in Perth Water, as close to shore as is reasonably practicable. Compensation for the loss of courtesy moorings by way of installation of additional courtesy moorings must be incorporated into the Final Mooring Location Drawings, as negotiated between Old Salt, the Department of Biodiversity, Conservation and Attractions and the Metropolitan Redevelopment Authority.

3. The Visual Impact Assessment required under **Condition 6** is to be undertaken in accordance with the *Visual Landscape Planning in Western Australia: A manual for evaluation, assessment, siting and design* (Western Australian Planning Commission, 2007) to ensure the barge design and location (as determined in accordance with Condition 5) limits the impact on visual amenity.

The assessment should demonstrate the views from key vantage points from Elizabeth Quay to the river, including The Landing, the William Street Landing, The Island and The Bridge are maintained. The barge should not be prominently visible from these vantage points.

The assessment will ensure the vistas from Kings Park, Elizabeth Quay, and the Perth and South Perth foreshores are maintained, protected and/or enhanced.

4. Final Barge Design Drawings required under **Condition 7** must be endorsed by the City of Perth, and Metropolitan Redevelopment Authority, and in consultation with the Botanic Gardens and Parks Authority prior to submission to the Department of Biodiversity, Conservation and Attractions.

Final design documentation is to include the selected colour scheme and finishes which reflect the character and landscape setting of the Swan River and surrounding foreshore, and must demonstrate the design of the barge is consistent with the Metropolitan Redevelopment Authority's *Elizabeth Quay Design Guidelines*. The final design documentation is to address the findings of the Visual Impact Assessment required under **Condition 6**.



5. The Noise Management Plan required under **Condition 8** must be endorsed by the City of Perth and the Metropolitan Redevelopment Authority prior to submission to the Department of Biodiversity, Conservation and Attractions.

The plan must include, but not necessarily be limited to:

- additional noise modelling for scenarios including no-wind conditions;
  - modelling which is inclusive of all planned development within the Elizabeth Quay, Perth foreshore and South Perth foreshore, and existing residential, commercial and recreational premises of Perth CBD (including Elizabeth Quay and Barrack Street Jetty), Kings Park and the South Perth Peninsula;
  - specifications of amplified sound equipment proposed for the barge, including criteria (volume and sound limiters) for additional equipment that may be used on the barge for specific events to ensure predicted noise levels from the barge comply with the assigned levels under the Environmental Protection (Noise) Regulations 1997;
  - monitoring of noise at sensitive receptors (including but not limited to Elizabeth Quay and Barrack Street Jetty, Kings Park and the South Perth Peninsula) for calibration of the noise modelling for each type of event (wedding, corporate function, private party, DJ event, band event, etc) for a period of 12 months to ensure actual noise levels from the barge comply with the assigned levels under the Environmental Protection (Noise) Regulations 1997.
6. The Standard Operating Procedure for noise mitigation required under **Condition 9** must detail the noise mitigation strategies for the barge with each event type and is to be informed by the Noise Management Plan.

The procedure must detail the specifications for equipment to be used on the barge, including the size and direction of amplified sound equipment such as speakers, and the circumstances under which the roof is to be closed. The procedure must include details on complaint management.

7. Final Mooring Design Drawings required under **Condition 10** must demonstrate the mooring is designed for 1 in 100 year flood events, and is of environmentally friendly design.
8. The Moored Barge Contingency Plan required under **Condition 11** is to discuss procedures for the removal of the barge from Perth Water in storm and flood events anticipated to be greater than 1 in 100 years.
9. The Traffic Management Plan required under **Condition 12** must be endorsed by the City of Perth prior to submission to the Department of Biodiversity, Conservation and Attractions.

The plan is to give due consideration to the impact of the development on parking, pedestrian and cycle traffic and public transport.

10. The Fuel Storage and Refuelling Management Plan required under **Condition 13** must detail:
  - i. the transfer of fuel from Barrack Street Jetty to the transfer vessel, and the subsequent transfer to the barge;
  - ii. fuel storage on the transfer vessel and barge;
  - iii. an assessment of the risk of discharge to the environment at each stage of fuel transfer and storage, and appropriate mitigation strategies for each risk to ensure the water quality of the Swan River is protected.
11. The Waste Management Plan required under **Condition 14** must be endorsed by the City of Perth prior to submission to the Department of Biodiversity, Conservation and Attractions.

The plan must include, but not necessarily be limited to:



- a. calculations of waste estimated to be produced by each type of event, including solid and liquid effluent waste, solid putrescible waste, solid recyclable waste, grease trap waste, sanitary waste, marine oils and lubricants;
  - b. details for on-board management of kitchen and bar waste;
  - c. details of storage and wash down facilities for bins (both recyclables and general waste) at Barrack Street Jetty;
  - d. details of the transfer of waste, both liquid and solid, from the barge to transfer vessel, and from transfer vessel to Barrack Street Jetty;
  - e. waste disposal and collection strategy for Barrack Street Jetty demonstrating how these facilities will be serviced;
  - f. a risk assessment of discharges to the environment at each stage of waste management and transfer, and proposed mitigation strategies for each risk to ensure the protection of water quality of the Swan River.
12. The Construction Environmental Management Plan required under **Condition 15** is to address the risk of pollution, contamination and any other environmental impacts causing detrimental impact on water quality of the Swan River, from the construction of the moorings.

The plan is to address, but not be limited to:

- scope of works;
- site access;
- machinery, equipment and materials to be used;
- management of machinery or other equipment (e.g. refuelling, storage, maintenance);
- methodology for installation of mooring;
- means of protecting the waterway from inputs of deleterious matter;
- sediment management during construction;
- public and vehicle access;
- waste management;
- schedule of works, hours of operation and responsibilities; and
- complaints and incidents.

In the event of a sediment plume or hazardous spill in the river, this should be reported to the Department of Biodiversity, Conservation and Attractions on 9219 9000 or a/h 0419 192 845.

- a. survey seagrass, macroalgae and benthic habitat in the immediate vicinity of the works;
  - b. survey aquatic fauna in the local environment;
  - c. characterise the quality of sediment and water within the vicinity of the works;
  - d. Establish an Environmental Management System to mitigate and manage potential impacts on the surrounding environment from the operation of the barge and moorings.
13. The Sampling and Survey Program required under **Condition 16** should be designed to include ongoing water and sediment sampling and seagrass, microalgae and benthic habitat surveys to assess:
- a. the impact of patron transport vessel movements and the operation of the moorings and barge on dolphin behaviour in the area;
  - b. the impact of artificial lighting on the barge on fish behaviour and the natural biological regimes of the river;
  - c. the build-up of antifouling in the surrounding sediment and build-up of deleterious matter in the surrounding environment; and

- d. the impact of the operation of the barge and moorings, including maintenance, on sediment and water quality.

The Site Investigation and Sampling and Survey Program should be designed and conducted on advice from the Department of Biodiversity, Conservation and Attractions.

14. The Lighting Plan required under **Condition 17** is to include detail on:
  - a. navigational lighting (to be endorsed by Department of Transport and the Australian Maritime Safety Authority, if required);
  - b. lighting to be used for each function type, including wattage and direction, and validation that it is fit for purpose.

The plan should demonstrate lighting will not adversely impact the amenity of the area.

15. If granted a River Reserve Lease, the applicant will be required to prepare, implement and maintain an Environmental Management System, site specific safety procedures and an emergency management plan as part of the terms of the lease agreement.
16. A review of the Noise Management Plan required under **Condition 24** must occur 12 months after commencement of operation of the barge, including a summary of the noise monitoring results, complaints, and an assessment of the suitability of noise mitigation strategies. A report on the review of the Noise Management Plan is to be submitted to the Department of Biodiversity, Conservation and Attractions for review and comment.
17. With reference to **Condition 25**, reporting on the findings of the Sampling and Survey Program is to be submitted to the Department of Biodiversity, Conservation and Attractions annually in accordance with the Sampling and Survey Program approved under **Condition 16**.

Reporting is to include:

- a. a summary of the monitoring results;
  - b. an assessment of the suitability of the environmental management strategies; and
  - c. amendments to the Environmental Management System, if required.
18. To allow sufficient time for the Department of Biodiversity, Conservation and Attractions to consider and approve the drawings, designs and plans required under **Conditions 5 to 17** inclusive, the documents should be submitted to the Department of Biodiversity, Conservation and Attractions no later than 30 days prior to the expected commencement date.
  19. The applicant is advised to contact the Department of Aboriginal Affairs to ensure that the proposed works do not breach any section of Part IV (Protection of Indigenous Sites) of the *Aboriginal Heritage Act 1972*.



Hon Stephen Dawson MLC  
**MINISTER FOR ENVIRONMENT**

Date: 3/1/18



**DEPARTMENT OF PARKS AND WILDLIFE REPORT**

PROPOSAL : Installation of Moorings and Development of Barge Event Venue in  
Perth Water, Swan River

LOCATION : Lot 301 on Plan 47451 (Reserve 48325, Swan River), Perth

APPLICANT : Old Salt Pty Ltd

LANDOWNER : Swan River Trust

LOCAL GOVERNMENT : City of Perth

MRS CLASSIFICATION : Waterways

DECISION TYPE : Part 5, *Swan and Canning Rivers Management Act 2006* –  
Ministerial Determination

ATTACHMENTS : 1. Location Map  
2. Design Concept  
3. Mooring Design

RECOMMENDATION : **APPROVAL WITH CONDITIONS**

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**REPORT**

**1.0 INTRODUCTION**

- 1.1 The Department of Parks and Wildlife (Parks and Wildlife) has received an application from Old Salt Pty Ltd (Old Salt) to install moorings and develop a barge event venue for up to 250 patrons approximately 400m from Elizabeth Quay in the Swan River (Perth Water), 150m south of the Rottnest Island – Perth ferry and west of the Mends Street Jetty ferry navigation route (**Attachment 1**).
- 1.2 The moorings and barge are proposed to be located on Lot 301 on Plan 47451 (Reserve 48325) within the Swan River vested in the Swan River Trust (the Trust).
- 1.3 The subject lot is located wholly within the Swan Canning Development Control Area (DCA). The application is therefore being processed pursuant to Part 5 of the *Swan and Canning Rivers Management Act 2006* (SCRM Act). The Director General of Parks and Wildlife will provide a recommendation on the proposal to the Minister for Environment.
- 1.4 If approved, works cannot commence on the installation of the moorings and barge until a River Reserve Lease has been granted. Old Salt will also require a permit and licence from Parks and Wildlife for the use of the barge on a commercial basis in accordance with the SCRM Act and the Swan and Canning Rivers Management Regulations 2007.

## **Barge**

- 1.5 The barge is a custom built single-tier facility, with dimensions of 36.5m x 12.2m (a total footprint of 445m<sup>2</sup>), with a moulded depth of 2.6m. At deck level is a commercial kitchen, bar, cool room, waste room, generator room, toilets, and storage room. All areas except the deck are covered, and the northern and western sides of the deck level are enclosed. The deck features a retractable roof (**Attachment 2**).
- 1.6 Materials for finishes include dark brown timber side wall and perimeter fencing, light grey timber decking, white tile splashbacks to wet areas, copper taps and lights, silver corrugated tin side wall and yellow, red, charcoal and blue-grey features in branding and small touches.
- 1.7 Old Salt proposes to moor the barge in Perth Water permanently.

## **Moorings**

- 1.8 The barge will be secured in place by a new, exclusively used four-point system utilising super high holding power anchors. Each mooring will be located 41.25m from the corners of the barge, 98.4m apart on the long edge of the barge, and 74.1m apart on the short edge. The footprint of the development including the mooring footprint is 7,291m<sup>2</sup> (**Attachment 3**).
- 1.9 The mooring design is based on a 1 in 50-year storm event, and is designed to withstand winds in excess of 60 knots. The high holding power of the anchors allows for the use of relatively short chains, reducing the impact on the riverbed. As the vessel is attached to the moorings in each of its four corners, it is prevented from rotating, preventing the chain from sweeping across the riverbed.

## **Patron Transportation**

- 1.10 Old Salt proposes to transfer patrons to and from the barge using a dedicated transfer vessel which can seat up to 38 patrons.
- 1.11 The transfer vessel would require separate approval to operate in accordance with the Regulations.

## **Barrack Street Jetty**

- 1.12 Old Salt proposes to sub-lease a berth and facilities from Perth Water Transport, based at Jetty 2 West, Barrack Street Jetty.
- 1.13 This berth has an accessibility ramp available for use, in addition to services including diesel fuel, water, sullage and rubbish facilities. Old Salt proposes to utilise the facilities for patron transfers, goods transfer, waste removal and refuelling of the barge via transfer vessel.

## **2.0 CONSULTATION**

- 2.1 In December 2016 Parks and Wildlife referred the Old Salt application to the City of Perth, the City of South Perth, the Metropolitan Redevelopment Authority, Department of Transport, Department of Water, Department of Aboriginal Affairs, Public Transport Authority and Botanic Gardens and Parks Authority.

### **City of Perth**

- 2.2 The City of Perth provided a preliminary response on 16 February 2017, indicating it did not support the proposal based on the information provided, and requested additional information is provided to enable more consideration of the proposal.
- 2.3 Further information was provided to the City of Perth on 23 February 2017 and a final response received on 24 February 2017.
- 2.4 The City advises the proposal is not supported at this stage based on the information provided and requests that additional information is provided to



enable a more informed consideration of the design quality and amenity impact of the proposal:

- a) further details of the design of the barge including floor plans; elevations; finish details of the external spaces and landscaped areas and a photomontage perspective from important viewpoints including Elizabeth Quay pedestrian bridge, Riverside Drive pedestrian footpath and Kings Park;
- b) a Waste Management Plan with details regarding on board management of kitchen and bar waste; details of permanent storage and wash down facilities for bins for both recyclables and general waste at Barrack Street Jetty including a waste disposal/collection strategy demonstrating how these facilities will be serviced;
- c) details being provided of any ancillary structures required within Barrack Street Jetty to assess the appropriateness of the design and locality of these structures; and
- d) an acoustic report detailing the noise generation for each different type of event proposed to be accommodated on the barge when located within Perth Water and the anticipated noise levels received by nearby residents, court buildings and commercial premises in proximity of the proposed barge.

#### **Department of Transport**

- 2.5 The Department of Transport (DoT) provided comments on the proposal on 15 December 2016 and noted the vessel will be required undergo Plan Approval and Survey and to have a National Law Certificate of Survey as a Class 1E Passenger Vessel, in addition to a National Law Certificate of Operation.
- 2.6 Further comment was received from DoT on 1 February 2017 noting the moorings should be environmentally friendly in design.
- 2.7 Comment received on 16 February 2017 noted all operations and activities concerning the Old Salt barge and transfer vessel are to be conducted in accordance with all relevant Western Australian marine legislation and Prevention of Collisions at Sea Regulations 1983.

#### **Department of Water**

- 2.8 The Department of Water (DoW) provided comments on the proposal on 9 January 2017.
- 2.9 DoW advises that the *Assessment of Swan and Canning River Tidal and Storm Surge Water Levels* (URS, 2013) shows the proposed development location is affected during major events (1 in 100 AEP). DoW's floodplain management strategy for the area states that when development is proposed within the 1 in 100 AEP floodplain (between the Narrows Bridge and the Causeway), development is assessed based on its merits and the factors examined include depth of flooding, velocity of flow, its obstructive effects on flow, possible structural and potential flood damage, difficulty in evacuation during major floods and its regional benefit.
- 2.10 While the *Old Salt Risk Management Plan and Mooring and Riverbed Analysis Report* refers to providing protection against 1 in 50 AEP storms, this considers wind and current speed, and not river flooding.
- 2.11 The alignment of the barge to present the smallest area to the south-west (direction of most likely severe storms) means that river flows/flooding will hit the barge on its side. Should the barge break free of its mooring there is potential to obstruct flows, and possibly damage The Narrows bridge.

- 2.12 Further advice provided on 17 January 2017 indicated Old Salt should ensure consideration of river flooding and how flood risks are intended to be managed (either passively through appropriate design or alternatively actively through responses immediately preceding/during events).

#### **Department of Aboriginal Affairs**

- 2.13 The Department of Aboriginal Affairs (DAA) provided comment on the proposal on 10 January 2017.
- 2.14 DAA advised that the proposed works are within the boundary of Aboriginal site DAA 3536 (Swan River), which is on the Register of Places and Objects. DAA recommends Old Salt provide information relating to the proposal to the South West Aboriginal Land and Sea Council for comment. This will assist Old Salt to determine whether an approval under the *Aboriginal Heritage Act 1972* will be required.

#### **Metropolitan Redevelopment Authority**

- 2.15 The Metropolitan Redevelopment Authority (MRA) provided comments on the proposal on 11 January 2017. Although the proposed development is not located within the MRA's redevelopment area, it is adjacent to the MRA's Elizabeth Quay Project Area which also includes Barrack Square. The MRA is generally supportive of the proposed development as it is considered to contribute to the activation of the locality, and supports the vision for Elizabeth Quay as a high quality urban environment.
- 2.16 MRA advised that the development will need to demonstrate that it will not negatively impact on the amenity of Elizabeth Quay, and minimise any impact generated by noise, traffic and anti-social behaviour on the locality.

#### **Public Transport Authority**

- 2.17 The Public Transport Authority (PTA) provided comments on the proposal on 31 January 2017, offering no objection.
- 2.18 Consideration was given to the interaction with the ferry routes, and the use of Jetty 5 at Barrack Street Jetty. As the proponent intends to utilise a berth at Jetty 2, no further issues were identified.

#### **Botanic Gardens and Parks Authority**

- 2.19 The Botanic Gardens and Parks Authority (BGPA) provided comments on the proposal on 3 March 2017.
- 2.20 The BGPA advises that the Old Salt vessel will be clearly within the view lines from Kings Park, and particular care should be taken in the choice of materials and colours used on the vessel so as not to negatively impact on the views from Kings Park. The BGPA preference would be for non-reflective materials to be used on all surfaces and that muted or natural colours are used to ensure the vessel blends with its surrounding environment and to avoid glare or distraction of the eye towards the vessel in the outlook from viewing points in the park.
- 2.21 The BGPA is concerned about noise levels and their potential impact on Kings Park visitors and the restaurant venue in Kings Park. The BGPA notes the noise levels as plotted in the Noise Management Plan shows the music concerts will have the potential to be clearly audible in some areas of the park. Visitors to Kings Park enjoy a relatively quiet, park atmosphere for relaxation and passive recreation. The BGPA is concerned that loud music on the vessel for private events or music concerts will extend into the popular visitor areas along the ridge of the Mt Eliza Escarpment, interrupting the ambience of the park environment for visitors.



## **Tourism WA**

- 2.22 Tourism WA corresponded with Parks and Wildlife on 31 March 2017, recommending consideration of the Old Salt proposal in terms of the long-term vision for Perth Water, and the significant investment of both Government and private investors for the development of Elizabeth Quay.
- 2.23 Tourism WA notes the future development of the National Indigenous Cultural Centre (NICC) may be adversely impacted by any permanent/semi-permanently moored barge vessels in Perth Water.

## **City of South Perth**

- 2.24 At the time of preparation of this Draft Report, the City of South Perth had not provided comment on the proposal.

## **Swan River Trust**

- 2.25 In accordance with section 75(3A) of the SCRM Act 2006, the Trust considered the draft report at its meeting on 9 May 2017.

- 2.26 The Trust discussed the following issues:

- the general question of whether event barges in Perth Water are acceptable;
- the visual amenity of large, industrial-looking barges permanently placed in the landscape;
- the appearance of the barge, especially over time;
- the interference with view-scapes from key locations such as Elizabeth Quay, Kings Park and South Perth;
- that the proposal will detract from the key aspects of what makes the river important to the community;
- there being a significant difference between development at the river's edge and permanent structures mid-river;
- the planning around future commercial and residential development in surrounding areas, especially Elizabeth Quay;
- noise and other impacts associated with moving patrons, supplies and waste materials from the operation;
- the impact on other river users, including the need to remove or relocate existing courtesy moorings;
- the relationship of the proposals to the policy objectives of State Planning Policy 2.10;
- that if approved, the proposal would need to be time-limited and be subject to strict conditions.

- 2.27 The Trust noted that the proposal had not been supported by referral agencies.

- 2.28 The Trust resolved:

*"to advise the Director General that it did not support the draft report and recommendation as outlined as it does not consider the application by Old Salt Pty Ltd to be acceptable and should be refused.*

*The Trust fundamentally opposes the development of floating barge event venues on the river system due to the adverse impact on visual amenity, the permanent alienation of the waterway from community use, the interference with key view-scapes, the incompatibility of the use with the community's use and enjoyment of the river system, the noise impacts on surrounding current and future residents and the issues relating to servicing such venues.*

*In reaching this decision, the advice and recommendations of the City of Perth, the City of South Perth, the Metropolitan Redevelopment Authority, the Department of Transport, the Department of Water, the Department of Aboriginal*

*Affairs, the Public Transport Authority and the Botanic Gardens and Parks Authority were considered and supported.”*

- 2.29 The Trust further advised however that if the Minister for Environment was to approve the proposed development, the conditions proposed were appropriate. The Trust requested that if approved, servicing and patron management must only occur at Barrack Street Jetty as proposed by Old Salt Pty Ltd, and the approval should be time-limited. If approved, the development and operation should be carefully managed and monitored.

#### **Public Notice**

- 2.30 The proposal was formally advertised in accordance with Section 74(2) of the SCRM Act. The advertisements were run for two (2) consecutive weeks in The Western Australian newspaper (4 and 11 February 2017) and the Western Suburbs Weekly (Perth CBD) and Southern Gazette (South Perth) (7 and 14 February 2017). Public submissions were requested for a period of four (4) weeks concluding on 4 March 2017.
- 2.31 Two submissions were received during the public notice period, and two late submissions were received.
- 2.32 The first submission was received on 28 February 2017. This submission was an objection to the proposal based on waste management, refuelling, noise, and proposed location.
- 2.33 The second submission was received on 2 March 2017, and amounted to an objection to the proposal due to the vulnerability of the river and the “lack of need” for more eateries in the area. The submission noted that Government should have more respect for the rivers and wetlands.
- 2.34 The third and fourth submissions were received on 11 April 2017, and amounted to objections to the proposal due to possible noise impacts on the residents of South Perth Peninsula.

### **3.0 PUBLIC COMMENT – SUBMISSIONS ON DRAFT REPORT UNDER SECTION 75 OF THE SCRM ACT**

- 3.1 In accordance with the requirements of Part 5 of the SCRM Act a copy of the draft report and proposed recommendation was provided to the applicant, referral agencies and members of the public who provided a submission. A copy was also published on the Parks and Wildlife website for a period of 17 days between 2 and 19 June 2016 with an invitation for public submissions.
- 3.2 DoT provided comment on 6 June 2017, requesting it be included in the list of endorsing agencies required in Advice Note 2 for the preparation of the final mooring. This is supported and Advice Note 2 has been modified to include DoT.
- 3.3 MRA provided comment on 12 June 2017. MRA considers the location of the development should be confirmed prior to determination, especially considering the intended privatisation of the courtesy swing moorings. Parks and Wildlife note that no privatisation of courtesy moorings is proposed, although should the barge be located within the courtesy mooring area, some moorings will be removed and require replacement at an alternative location. It is considered that this can be readily managed through conditions of approval.
- 3.4 MRA notes the relocation of the barge closer to Elizabeth Quay, and future residential development, will result in a greater need to adequately ameliorate noise in accordance with relevant legislation. MRA requested the Noise Management Plan is provided for review and therefore Advice Note 5 has been updated to include consultation with MRA.



- 3.5 MRA notes and supports the use of Barrack Square for all patron movements, waste disposal and signage, and any additional infrastructure may require approval from MRA.
- 3.6 The applicant provided comment on 15 June 2017 stating it accepts the proposed conditions of approval.
- 3.7 At the close of the public comment period, one public submission had been received, dated 19 June 2017. The submission included:
- a) The basis for planning decisions must be a 1 in 100 year flood event;
  - b) The submitter is concerned about mooring of the barge near the Narrows Bridge, and any unforeseen circumstances may be dangerous to the bridge;
  - c) The submitter asked if a substantial surety is to be paid upfront to pay for demolition/disposal of the structure when the company goes into liquidation;
  - d) The structure seems to be an impediment to yachting regattas in the area;
  - e) The submitter is concerned about the potential number of future development of a similar nature;
  - f) The submitter asked if rapid access is guaranteed for ambulance or police;
  - g) The submitter asked how will sullage transfer and litter be managed and compensated on failure;
  - h) The submitter notes the area is a major location for power boat owners to moor and recreate temporarily, and this development will impede these activities.
- 3.8 The issues raised are discussed in Section 6.0 of the report and can be addressed through conditions of approval and the subsequent lease process to follow.

#### 4.0 RELEVANT POLICIES AND PLANS

- ◆ State Planning Policy 2.9 – *Water Resources* (SPP2.9)
- ◆ State Planning Policy 2.10 – *Swan-Canning River System* (SPP2.10)
- ◆ Corporate Policy Statement No. 42 - *Planning for Land Use, Development and Permitting Affecting the Swan Canning Development Control Area* (Policy 42)
- ◆ Corporate Policy Statement No. 44 - *Planning for Jetties in the Swan Canning Development Control Area* (Policy 44)
- ◆ Corporate Policy Statement No. 46 - *Planning for Commercial Operations in the Swan Canning Development Control Area* (Policy 46)
- ◆ Corporate Policy Statement No. 49 - *Planning for Stormwater Management Affecting the Swan Canning Development Control Area* (Policy 49)
- ◆ Corporate Policy Statement No. 51 - *Planning for Wastewater Affecting the Swan Canning Development Control Area* (Policy 51)

#### 5.0 ENVIRONMENTAL AND PLANNING CONSIDERATIONS

- ◆ Landscape character
- ◆ Public access and community benefit
- ◆ Amenity

- ◆ Recreation and tourism
- ◆ Transport
- ◆ River flood
- ◆ Cultural and natural heritage
- ◆ Pedestrian and vehicular traffic
- ◆ Water quality protection
- ◆ Ecological health
- ◆ Development of food and beverage facilities on or over waters
- ◆ Lighting and signage
- ◆ Infrastructure and services
- ◆ Maintenance of facilities
- ◆ Stormwater quality

## 6.0 DISCUSSION

### Landscape Character

- 6.1 State Planning Policy 2.10 – *Swan-Canning River System* (SPP2.10), Corporate Policy Statement No. 42 - *Planning for Land Use, Development and Permitting Affecting the Swan Canning Development Control Area* (Policy 42), Corporate Policy Statement No. 44 - *Planning for Jetties in the Swan Canning Development Control Area* (Policy 44) and Corporate Policy Statement No. 46 - *Planning for Commercial Operations in the Swan Canning Development Control Area* (Policy 46) require development proposals do not to restrict or negatively impact on public views to or from the river, particularly from vantage points, and that proposals ensure the essential qualities of Perth Water are protected and enhanced.
- 6.2 SPP2.10 requires the protection of views across and from the water, both north and south of the river between the Narrows Bridge and the Causeway and east and west between Kings Park and Heirisson Island; the protection of views of the Kings Park escarpment from both the north and south shores and from craft on the river; the maintenance and enhancement views of the river from city streets and public places; the protection and enhancement of river views in redevelopment projects; and ensuring that development complements the natural landforms and provides opportunities for public access to and enjoyment of the river.
- 6.3 Policy 42 requires proposals have due regard for the provisions of the *Visual Landscape Planning in Western Australia: A manual for evaluation, assessment, siting and design* (Western Australian Planning Commission, 2007), and consider the proposal's impact on the landscape.
- 6.4 The vistas from Kings Park, Elizabeth Quay, and the Perth and South Perth foreshores are currently uninterrupted on a permanent basis, with only transient interruptions by private and commercial vessel movements through Perth Water. The permanently moored barge in the proposed location will negatively impact on the uninterrupted vista from various vantage points in the Perth area (due to the bulk, scale and design of the barge). To mitigate this, as a condition of approval the barge will be required to be located in an alternative position within Perth Water, to the satisfaction of Parks and Wildlife, on the advice of the City of Perth and the Metropolitan Redevelopment Authority.



- 6.5 The preferred location for the barge will be within the existing courtesy mooring area, as close to shore as is reasonably practicable. It is expected that moving the barge closer to the shore line will reduce the visual impact of the barge from key vantage points, allowing the barge to appear more connected to the landward edge of the river and connect with the adjacent Elizabeth Quay development.
- 6.6 The relocation of the barge is to be supported by a Visual Impact Assessment in accordance with the *Visual Landscape Planning in Western Australia: A manual for evaluation, assessment, siting and design* to ensure the barge design and location limits the impact on visual amenity. The Visual Impact Assessment will be required as a condition of approval and should demonstrate the views from key vantage points from Elizabeth Quay to the river, including The Landing, the William Street Landing, The Island and The Bridge, which were designed specifically to provide expansive views across the river, are maintained. The barge should not be prominently visible from these vantage points.
- 6.7 The barge features Nordic design, and although Old Salt has stated that the barge has been designed to be part of the landscape, with the majority of the barge surface being laid with light grey coloured timber decking, and walls of the barge being a light coloured corrugated tin, it is considered that the barge will not blend with the surrounding river environment, and may be visually obtrusive on the river.
- 6.8 The barge colour schemes will require modification to ensure the development blends with the surrounding environment, and should include non-reflective natural colour pallets. Final Barge Design Drawings, including a list of materials and finishes will be required as a conditional of approval, and should be prepared in consultation with the City of Perth and the MRA for approval by Parks and Wildlife. Due to the proximity to Elizabeth Quay, the design of the barge should be consistent with the MRA's *Elizabeth Quay Design Guidelines*, which emphasises the importance of the re-establishment of the historic connection between the city and the river.

#### **Public Access and Community Benefit**

- 6.9 SPP2.10 requires public access to the river is maintained and enhanced while protecting the river; jetties and similar structures over and abutting the river do not restrict public access along the foreshore; and development proposals recognise that the river is a public resource that should be available to the community in perpetuity. Any proposal for a use or development within the public realm that may affect the river and its settings should demonstrate a benefit to the community that offsets any detrimental impacts on the environment.
- 6.10 Policy 42 seeks to ensure proposals do not impair other forms of acceptable use or jeopardise the safety of others utilising the Swan Canning river system and its foreshores.
- 6.11 Policy 46 requires possible conflicts of use with other established tourism and recreational facilities, public uses, or river transport infrastructure are identified, and development proposals do not cause conflicts with other appropriate forms of use or unacceptable congestion.
- 6.12 The Old Salt proposal includes the permanent mooring of a barge in Perth Water for exclusive access, which will reduce the area of Perth Water currently freely accessible to the public. The total footprint of the development is over 7,200m<sup>2</sup>, and would ultimately form an exclusion zone within Perth Water.
- 6.13 Although the proposal may potentially impair other forms of acceptable use, including quiet enjoyment on Perth Water and the Perth City foreshore by the public, these impacts can be mitigated through management plans and ongoing monitoring and reporting to Parks and Wildlife.

- 6.14 Relocation of the barge within the courtesy mooring area may negatively impact enjoyment of the area by reducing the number of moorings currently accessible to the public, and Old Salt will be required to install replacement courtesy moorings in the courtesy mooring area to compensate for the loss of moorings (at a rate of 1:1), in consultation with the MRA and Parks and Wildlife. A proposal for the replacement of courtesy moorings will be required in conjunction with the final mooring location.
- 6.15 Relocation of the barge within the courtesy mooring area may increase the noise levels experienced by sensitive noise receptors however and will require ongoing management.

### **Amenity**

- 6.16 Policy 46 requires proponents to demonstrate they are managing effects on amenity.
- 6.17 The City of Perth and MRA have expressed concern that noise impacts have not been fully considered. Potential adverse impacts on amenity may arise from an increase in vehicular and pedestrian traffic around and within Barrack Street Jetty, beyond the intended capacity of that facility; noise emissions from the barge during events, refuelling and waste transfer; noise from the embarking and disembarking of passengers at Barrack Street Jetty; and the loading and unloading of food and bar service provisions, fuel and waste at that facility.
- 6.18 Old Salt has developed a Noise Management Plan, outlining prediction methodology for normal events being weddings, corporate functions and private parties, with an assumed noise level of 75dB(A); and DJ or band events, where music is the focus, with a music level of 95dB(A) within the seating area. Modelling is based on wind from all directions, and consistent with the night-time conditions recommended by the Department of Environment Regulation.
- 6.19 The Noise Management Plan contains inconsistencies and may be inaccurate. The plan does not take into account future development, including residential tenancies at Elizabeth Quay, or no-wind events. The plan does not assess the noise impact of patrons embarking and disembarking at Barrack Street Jetty, and does not assess noise from loading and unloading of goods and waste and fuel at this facility.
- 6.20 A detailed Noise Management Plan will be required as a condition of approval which includes additional noise modelling for Elizabeth Quay, the Perth and South Perth foreshores, and existing residential, commercial and recreational premises of Perth CBD, Kings Park and the South Perth Peninsula. It is expected Old Salt undertake ongoing monitoring of noise at sensitive receptors during barge operations.
- 6.21 A Standard Operating Procedure will be required as a condition of approval detailing the noise mitigation strategies for the barge with each event type. The procedure must detail the specifications for equipment to be used on the barge, including the size and direction of amplified sound equipment such as speakers, and the circumstances under which the roof is to be closed. The procedure must include details on complaint management.
- 6.22 A review of the Noise Management Plan should be undertaken, which assessed the noise monitoring results and an assessment of the suitability of the noise mitigation strategies.
- 6.23 It will be a condition of approval that no noise can be generated by the barge that exceed the assigned noise levels.

### **Recreation and Tourism**

- 6.24 SPP2.10 and Policy 42 requires development must maintain access to the river for recreation and tourism.



- 6.25 Old Salt proposes to hold events such as Beach Club, weddings and corporate events, cinema nights, breakfast and brunch, private seminars and workshops, increasing opportunities for tourism and recreation.
- 6.26 Old Salt has not addressed other potential/future events that may be held on the river (such as the Perth City Skyworks, sailing and rowing events), or future planned development of Elizabeth Quay and surrounds.
- 6.27 Tourism WA advises that Elizabeth Quay is a critical piece of tourism infrastructure that will, as it develops, become a key destination, place to stay, and centre of activity for visitors to Perth and Western Australia. This represents a significant level of both Government and private investment including a number of existing and proposed hotels, bars, restaurants and cafes. Importantly, the proposed future development of a National Indigenous Cultural Centre (NICC) is to be located in Perth Water adjacent to Elizabeth Quay.
- 6.28 Old Salt seeks to utilise this area of Perth Water which should be considered in the context of a long-term vision. Any use of Perth Water should not restrict the potential development of a major tourist attraction such as the NICC, or unduly impact on the day to day operation of Elizabeth Quay.
- 6.29 Parks and Wildlife considers that proposals should support the growth of Elizabeth Quay as a destination as it develops. Importantly, this ensures that the long-term intent, and future opportunities associated with the expansion of Elizabeth Quay, the Perth Convention and Exhibition Centre and the NICC are acknowledged.

#### **Transport**

- 6.30 SPP2.10 and Policy 42 requires development must maintain access for river transport.
- 6.31 The barge is proposed to be located outside of the navigational channel and will not hinder movement of recreational vessels. It would be expected that the alternate location for the moorings and barge will maintain access for river transport.

#### **River Flood**

- 6.32 Policy 42 requires development proposed within the flood fringe to be designed to minimise damage during a major flood event. Parks and Wildlife is to have due regard for the DoW's floodplain management process and advice on flood risk. Policy 46 requires consideration of flood prone land including whether the design has made provisions for sea level rise, major flood events and tidal surges, and will not adversely affect the hydrology of the floodplain.
- 6.33 In its general advice in relation to mooring of barges within Perth Water, DoW advise the extent of river flooding is to be considered in the design of the barge and its moorings, and how flood risks are intended to be managed (either passively through appropriate design or actively through responses immediately preceding/during events).
- 6.34 The proposed mooring has been designed to allow for 1 in 50 year storm event (wind speed and direction), however further evidence is required to demonstrate the mooring is designed for 1 in 100 year flood events. Contingency planning is also required, which discusses procedures for the removal of the barge from Perth Water in storm and flood events anticipated to be greater than 1 in 100 years. Final Mooring Design Drawings will be required as a condition of approval.

#### **Cultural and Natural Heritage**

- 6.35 SPP2.10 states that the natural and cultural heritage values of the river should be protected and enhanced. Consideration of Aboriginal and European based cultural and natural heritage values should be taken into account when planning and determining proposals within the river area.

- 6.36 Policies 42, 44 and 46 further underpin the importance of minimising and managing the effects on Aboriginal and/or European heritage values.
- 6.37 Old Salt has corresponded and met with the South West Aboriginal Land and Sea Council to seek the support of the traditional owners. Recommendations were made on how Old Salt can be respectful of the Whadjuk Region, including possible event activations, naming rights to transfer vessels and other community involvement.
- 6.38 Old Salt is encouraged to undertake further proactive consultation with the traditional owners to ensure the development is consistent with the values of the Whadjuk people.

#### **Pedestrian and Vehicular Traffic**

- 6.39 Policy 46 requires proponents to provide information regarding the parking requirements of the development, and whether adequate car parking is proposed or currently exists.
- 6.40 A Traffic Management Plan has been provided by Old Salt, discussing the local road network, public transport and pedestrian access. A risk assessment has been undertaken for normal operations catering for 250 patrons, up to 15 staff, and service deliveries, and the impact on vehicular and pedestrian traffic.
- 6.41 An assessment has not been undertaken to determine the impact of an increase in vehicular and pedestrian traffic around and within Barrack Street Jetty, beyond the intended capacity of that facility, and no information has been provided to support the contention the number of existing car parks in close proximity to the proposal is adequate for the development.
- 6.42 Policy 46 requires that parking for the Old Salt venue should be equivalent to one car bay per four-person seating capacity and one car bay per two staff, or in accordance with the parking requirements of the City of Perth's City Planning Scheme No. 2.
- 6.43 A detailed Traffic Management Plan giving due consideration to parking, walking, cycling and public transport will be required as a condition of approval, and should be prepared in consultation with the City of Perth for approval by Parks and Wildlife.

#### **Water Quality Protection**

- 6.44 State Planning Policy 2.9 – *Water Resources* (SPP2.9) requires that proponents prevent or, where appropriate, ameliorate the potential impact on water quality and, as a minimum, proposed development should aim to maintain water quality.
- 6.45 Potential impacts on water quality include hydrocarbon contamination from fuel storage and transfer, and accidental spills; contamination from waste storage and transfer, and accidental spills; and turbidity due to the installation and operation of the moorings.
- 6.46 Old Salt has provided a Risk Management Plan which evaluates the risk of fuel spills during refuelling, but has not provided any information relating to the proposed refuelling activities.
- 6.47 Information in relation to the volume of diesel storage on the barge, the risks posed by the bulk storage of fuel on Perth Water, and mitigation and management strategies to address these risks has not been identified by the proponent. Old Salt has not provided information relating to the refuelling of the transfer vessel. A Fuel Storage and Refuelling Management Plan will be required as a condition of approval.
- 6.48 Old Salt proposes to treat liquid wastes using a waste treatment plant (WTP), to be located in the void spaces of the barge. The void space includes contingency storage for up to five days should the WTP fail. The risk to the environment



should a discharge occur is further reduced as the WTP produces effluent with Biochemical Oxygen Demand (BOD) from 0-10 mg/L, Total Suspended Solids (TSS) up to 35mg/L mg/L, and less than 100 thermotolerant faecal coliform per 100m. Old Salt does not propose to discharge to the river from the WTP, and it will be a condition of approval that no discharges from the WTP or the storage tanks within the voids of the barge to the river are to occur.

- 6.49 Wash down water produced from the washing of the deck will be collected and treated in the WTP, therefore no discharge of wash water is proposed. Litter and debris may accumulate on the deck of the barge, such as empty water bottles, food and general rubbish from food and drink service. The barge is proposed to be fully enclosed by at least 1m high walls which will restrict the movement of litter and debris from the barge to the river.
- 6.50 Old Salt proposes to transfer excess waste water produced by the WTP, and the residual solid waste "cube" from the WTP, to Barrack Street Jetty, however no detail is provided on the proposed transfer methodology, including the coupling of the transfer vessel or other vessel to the barge for liquid waste, the storage design of the waste transfer vessel, or the coupling of the waste transfer vessel to Barrack Street Jetty for liquid waste. No methodology has been provided for the transfer of the solid waste cube to a transfer vessel, and then Barrack Street Jetty, and if this waste will be transferred to a licensed Controlled Waste Handler for disposal at an appropriately licensed Controlled Waste Facility.
- 6.51 A detailed Waste Management Plan will be required as a condition of approval, which must be prepared in consultation with the City of Perth prior to submission to Parks and Wildlife for approval. The Waste Management Plan must include details for on-board management of kitchen and bar waste, details of permanent storage and wash down facilities for bins (both recyclables and general waste) at Barrack Street Jetty, including a waste disposal/collection strategy demonstrating how these facilities will be serviced. The plan must include information in relation to the risk of discharge to the environment at each stage of waste management and transfer, and proposed mitigation strategies for each risk for the protection of water quality of the Swan River.
- 6.52 Policy 42 requires the risk of pollution and contamination, causing detrimental impact on water quality of the Swan River from the construction and ongoing operation of the moorings, potential cumulative impacts, and any other environmental impacts associated with the development, are to be addressed in a Construction Environmental Management Plan (CEMP). A CEMP will be required as a condition of approval.

### **Ecological Health**

- 6.53 Policy 42 requires the protection and enhancement of the Swan Canning river system's ecological health. This includes maintaining tributary and stream habitats and their natural drainage functions, reducing nutrient enriched and polluted water inputs from adjacent land uses, minimising erosion of stream banks and protecting wetland ecosystems and associated wildlife habitats. The Policy requires the promotion of the maintenance and restoration of natural vegetation and encourage proponents to retain existing native vegetation as a means of protecting linkages and natural vegetation corridors.
- 6.54 Policy 46 indicates the development footprint and essential services including water, sewerage, electricity and telecommunications are to be provided without unacceptable environmental impacts.
- 6.55 The proposed mooring area is outside zones currently mapped as containing seagrass or macroalgae benthic primary producer habitat, therefore shading or over-shadowing of the benthos is not considered to present a threat to local

environmental assets, however further assessment will be required for the final barge location.

- 6.56 Old Salt states that there is no riverine vegetation in the area, however no environmental assessment has been conducted to quantify the potential effects, or how these will be managed.
- 6.57 A range of important fauna transition through Perth Water and potential impact to this fauna should be taken into consideration by proponents. The resident Swan Canning Riverpark dolphin population transits through and feeds in Perth Water. The highest sighting rate in this area occurs in winter, and dolphin sighting numbers are impacted by vessel density, with no sightings occurring during operation of Elizabeth Quay dredging barges.
- 6.58 Old Salt patron transport vessel movements should be cognisant of the potential impact on dolphin behaviour, and preferably movements should be staggered and avoid many vessel movements in peak periods, particularly during the day.
- 6.59 Artificial lighting can impact fish behaviour and this is variable based on both intensity and quality of light, and downwelling of light should be kept to a minimum. Old Salt has not provided sufficient information to assess the lighting proposed for the barge, which should be demonstrated to be fit for purpose and not adversely impact the natural biological regimes of the river.
- 6.60 Other risks presented by the permanent mooring of large barges include potential build-up of antifouling in the surrounding sediment and build-up of rubbish in the surrounding environment (bottles, plastics, cigarette butts etc.).
- 6.61 Further environmental investigations will be required as a condition of approval, including seagrass and macroalgae survey, benthic habitat survey, aquatic fauna surveys, and sediment and water quality assessments, prior to commencement, and a proposed ongoing sampling and survey program to monitor the impacts of the development.
- 6.62 The environmental investigations should be planned in consultation with Parks and Wildlife and should consider the risk to sediment and water quality from installation and operation of moorings (including maintenance), the risk of adverse impact on fauna behaviour from the installation of moorings, operation of transfer vessels, and lighting and noise from barge events, the risk to water quality from operation of the barge events from litter and other debris, and the risk to sediment and water quality from antifouling coatings and maintenance of the barge hull.
- 6.63 A report on the findings of the ongoing sampling and survey program will be required as a condition of approval, and is to include a summary of the monitoring results and an assessment of the suitability of the environmental management strategies and amendments to the Environmental Management System, if required.

#### **Development of Food and Beverage Facilities On or Over Waters**

- 6.64 Policy 46 sets requirements for food and beverage facilities on waters, including details on kitchen fit out, location of grease traps, and grey water waste management, including calculations for estimated volumes of waste generated.
- 6.65 Old Salt has provided insufficient information on how foods, goods, wastes and cleaning products are to be stored and transferred to and from the barge and this information will be required as conditions of approval.

#### **Lighting and Signage**

- 6.66 Policy 44 requires proponents to demonstrate that lighting is fit-for-purpose and will not interfere with vessel navigation, adversely affect the amenity of the area, or unacceptably alter the natural patterns of light and dark.



- 6.67 Old Salt has provided insufficient information regarding lighting. Old Salt will be required to provide a Lighting Plan as a condition of approval, including information on navigational lighting, and lighting to be used for each function type, including wattage and direction, and validation that it is fit for purpose, and will not adversely impact the amenity of the area. It is recommended Old Salt consult with the Department of Transport and the Australian Maritime Safety Authority with respect to navigational lighting requirements.

#### **Infrastructure and Services**

- 6.68 Corporate Policy Statement No. 51 - *Planning for Wastewater Affecting the Swan Canning Development Control Area* (Policy 51) requires that proponents should demonstrate that infrastructure and services can be provided in the manner proposed.
- 6.69 Old Salt proposes to sub-lease a berth and facilities from Perth Water Transport, based at Jetty 2 West, Barrack Street Jetty. This berth has an accessibility ramp available for use, in addition to services including diesel fuel, water, sullage and rubbish facilities. Old Salt proposes to utilise the facilities for patron transfers, goods transfer, waste removal and refuelling of the barge via transfer vessel.
- 6.70 In its letter dated 12 June 2017, MRA was supportive of the use of Barrack Square for all patron movements, waste disposal and signage, although any additional infrastructure may require approval from MRA.
- 6.71 MRA considers the location of the development should be confirmed prior to determination.
- 6.72 The installation of moorings within the courtesy mooring area is generally not supported due to the large development footprint (exclusion zone), however it is considered that there are no other reasonable locations for this barge within Perth Water considering potential impacts as discussed in this report.

#### **Maintenance of Facilities**

- 6.73 Policy 46 requires proprietors and facility managers undertaking maintenance activities such as paint scraping, spraying, washing or timber treatment on the exterior of a facility, to ensure adequate measures are taken to prevent river contamination.
- 6.74 Parks and Wildlife requires additional information on routine and other repairs and maintenance anticipated for the barge, transfer vessel and moorings, including management of micro and macro fouling and information on hull coating. This information will be required as conditions of approval.

#### **Stormwater Quality**

- 6.75 Corporate Policy Statement No. 49 - *Planning for Stormwater Management Affecting the Swan Canning Development Control Area* recommends proposals include a water quality treatment train for stormwater designed to meet the water quality management objectives of the catchment.
- 6.76 The WTP proposed by Old Salt will capture stormwater from the barge for treatment, reuse and/or disposal.

### **7.0 CONCLUSION**

- 7.1 Parks and Wildlife has assessed information provided by Old Salt in support of the application for development approval. Extensive consultation has occurred with agencies that have an interest in the proposal, informing and supporting the assessment of the benefits and potential detrimental impacts on the social and environmental landscape.
- 7.2 Old Salt has not demonstrated river views in redevelopment projects, specifically Elizabeth Quay and the future NICC, will be protected or enhanced. The

proposed location of the barge is in direct line of sight between Elizabeth Quay, Perth City foreshore and the South Perth foreshore, in addition to being prominently visible from the Mend Street Jetty at South Perth, and will interrupt the views from all purpose-built vantage points within Elizabeth Quay, the Perth foreshore and Kings Park. Old Salt has somewhat demonstrated an understanding of visual landscape planning, however further assessment is required to ensure consideration of the proposal's impact on the landscape.

- 7.3 Parks and Wildlife considers the barge would be visually obtrusive in the Perth Water landscape should it be moored in the location proposed by Old Salt. The relocation of the moorings to an area where a connection to the foreshore and Elizabeth Quay development area would be deemed acceptable. A thorough landscape assessment should be undertaken to ensure the barge location does not significantly impact public views to or from the river, particularly from vantage points, and the essential qualities of Perth Water are protected and enhanced. Further refinement of the barge materials and finishes, and alignment with the MRA's *Design Guidelines for Elizabeth Quay* will ensure the design compliments Elizabeth Quay in its design.
- 7.4 The mooring design, and the size of the barge requires an exclusion zone of approximately 7,300m<sup>2</sup> in Perth Water. The mooring design limits barge drift and chain drag on the riverbed in changing wind and tide conditions. The proposed location of the barge would not impact on the courtesy mooring area, however should an acceptable location be found within the courtesy mooring area, the loss of courtesy mooring(s) may occur. Old Salt would be required to compensate this loss with the installation of new moorings for public use. While the development within the public realm affects the river and its settings to a large extent, it is considered to be offset by the potential benefits to the community.
- 7.5 Further detail is required in a series of management plans, and consultation with Parks and Wildlife, the MRA and the City of Perth, to address the issues with the proposal identified in this report.

## 8.0 RECOMMENDATION – APPROVAL WITH CONDITIONS

That the Director General of the Department of Parks and Wildlife advises the Minister for Environment that the Old Salt proposal for the installation of moorings and development of a barge event venue in Perth Water, Swan River on Lot 301 on Plan 47451 (Reserve 48325, Swan River), Perth received on 28 November 2016 be approved, subject to the following conditions:

1. Approval to implement this decision is valid for two (2) years from the date of the approval. If substantial on-site works have not commenced within this period, a new approval will be required before commencing or completing the development.
2. Approval is subject to the proponent implementing the works in accordance with the application submitted on 28 November 2016, and additional information provided on 11 January 2017.
3. The location of the barge as proposed by Old Salt is not approved.

### Prior to the commencement of works

4. The applicant shall notify the Department of Parks and Wildlife in writing not less than seven (7) days prior to the commencement of works (see **Advice Note 1**).
5. Prior to commencement of works, Final Mooring Location Drawings shall be submitted to, and approved by the Department of Parks and Wildlife (see **Advice Notes 2 and 18**).



6. Prior to commencement of works, a Visual Impact Assessment shall be submitted to the Department of Parks and Wildlife (see **Advice Notes 3 and 18**).
7. Prior to commencement of works, Final Barge Design Drawings shall be submitted, and approved by the Department of Parks and Wildlife (see **Advice Notes 4 and 18**).
8. Prior to commencement of works, a Noise Management Plan shall be submitted to the Department of Parks and Wildlife (see **Advice Notes 5 and 18**).
9. Prior to commencement of works, a Standard Operating Procedure for noise mitigation shall be submitted to, and approved by the Department of Parks and Wildlife (see **Advice Notes 6 and 18**).
10. Prior to commencement of works, Final Mooring Design Drawings shall be submitted, and approved by the Department of Parks and Wildlife (see **Advice Notes 7 and 18**).
11. Prior to commencement of works, a Moored Barge Contingency Plan shall be submitted to, and approved by the Department of Parks and Wildlife (see **Advice Notes 8 and 18**).
12. Prior to commencement of works, a detailed Traffic Management Plan shall be submitted to, and approved by the Department of Parks and Wildlife (see **Advice Notes 9 and 18**).
13. Prior to commencement of works, a Fuel Storage and Refuelling Management Plan shall be submitted to, and approved by the Department of Parks and Wildlife (see **Advice Notes 10 and 18**).
14. Prior to commencement of works, a detailed Waste Management Plan shall be submitted to, and approved by the Department of Parks and Wildlife (see **Advice Notes 11 and 18**).
15. Prior to commencement of works, a Construction Environmental Management Plan shall be submitted to, and approved by the Department of Parks and Wildlife (see **Advice Notes 12 and 18**).
16. Prior to commencement of works, Site Investigations are to be conducted and a Sampling and Survey Program is to be established for approval by the Department of Parks and Wildlife (see **Advice Notes 13 and 18**).
17. Prior to commencement of works, a Lighting Plan shall be submitted to, and approved by the Department of Parks and Wildlife (see **Advice Notes 14 and 17**).
18. Prior to commencement of works, a River Reserve Lease is required to be granted in accordance with Section 29 of the *Swan and Canning Rivers Management Act 2006* (see **Advice Note 15**).

#### **During works**

19. All works shall be undertaken in accordance with the designs, drawings and plans approved under **Conditions 5, 7, 9, 10, 11, 12, 13, 14, 15, 16 and 17**.
20. The applicant shall take appropriate preventative measures during the works to ensure that no deleterious matter is allowed to enter the river.

#### **On completion of works**

21. Upon completion of the works, all waste materials, equipment and machinery shall be removed and the site cleaned-up to the satisfaction of the Department of Parks and Wildlife.

## Ongoing

22. The predicted and actual noise levels from the barge must comply with the assigned levels under the Environmental Protection (Noise) Regulations 1997.
23. No discharges of solids or liquids from the barge or transfer vessel are permitted during operation.
24. A review of the Noise Management Plan must occur 12 months after commencement of operation of the barge, and a report on the review must be submitted to the Department of Parks and Wildlife (see **Advice Note 16**).
25. Reporting on the findings of the Sampling and Survey Program is to be submitted to the Department of Parks and Wildlife annually in accordance with the Sampling and Survey Program approved under **Condition 16** (see **Advice Note 17**).

## ADVICE TO APPLICANT

1. Notification of commencement of work and plans can be emailed to [rivers.planning@dpaw.wa.gov.au](mailto:rivers.planning@dpaw.wa.gov.au).
2. Final Mooring Location Drawings required under **Condition 5** are to be endorsed by the Department of Transport, City of Perth and the Metropolitan Redevelopment Authority prior to submission to the Department of Parks and Wildlife.

The moorings and barge location is expected to be within the existing courtesy mooring area in Perth Water, as close to shore as is reasonably practicable. Compensation for the loss of courtesy moorings by way of installation of additional courtesy moorings must be incorporated into the Final Mooring Location Drawings, as negotiated between Old Salt, the Department of Parks and Wildlife and the Metropolitan Redevelopment Authority.

3. The Visual Impact Assessment required under **Condition 6** is to be undertaken in accordance with the *Visual Landscape Planning in Western Australia: A manual for evaluation, assessment, siting and design* (Western Australian Planning Commission, 2007) to ensure the barge design and location (as determined in accordance with Condition 5) limits the impact on visual amenity.

The assessment should demonstrate the views from key vantage points from Elizabeth Quay to the river, including The Landing, the William Street Landing, The Island and The Bridge are maintained. The barge should not be prominently visible from these vantage points.

The assessment will ensure the vistas from Kings Park, Elizabeth Quay, and the Perth and South Perth foreshores are maintained, protected and/or enhanced.

4. Final Barge Design Drawings required under **Condition 7** must be endorsed by the City of Perth, and Metropolitan Redevelopment Authority, and in consultation with the Botanic Gardens and Parks Authority prior to submission to the Department of Parks and Wildlife.

Final design documentation is to include the selected colour scheme and finishes which reflect the character and landscape setting of the Swan River and surrounding foreshore, and must demonstrate the design of the barge is consistent with the Metropolitan Redevelopment Authority's *Elizabeth Quay Design Guidelines*. The final design documentation is to address the findings of the Visual Impact Assessment required under **Condition 6**.



5. The Noise Management Plan required under **Condition 8** must be endorsed by the City of Perth and the Metropolitan Redevelopment Authority prior to submission to the Department of Parks and Wildlife.

The plan must include, but not necessarily be limited to:

- a. additional noise modelling for scenarios including no-wind conditions;
  - b. modelling which is inclusive of all planned development within the Elizabeth Quay, Perth foreshore and South Perth foreshore, and existing residential, commercial and recreational premises of Perth CBD (including Elizabeth Quay and Barrack Street Jetty), Kings Park and the South Perth Peninsula;
  - c. specifications of amplified sound equipment proposed for the barge, including criteria (volume and sound limiters) for additional equipment that may be used on the barge for specific events to ensure predicted noise levels from the barge comply with the assigned levels under the Environmental Protection (Noise) Regulations 1997;
  - d. monitoring of noise at sensitive receptors (including but not limited to Elizabeth Quay and Barrack Street Jetty, Kings Park and the South Perth Peninsula) for calibration of the noise modelling for each type of event (wedding, corporate function, private party, DJ event, band event, etc) for a period of 12 months to ensure actual noise levels from the barge comply with the assigned levels under the Environmental Protection (Noise) Regulations 1997.
6. The Standard Operating Procedure for noise mitigation required under **Condition 9** must detail the noise mitigation strategies for the barge with each event type and is to be informed by the Noise Management Plan.  
  
The procedure must detail the specifications for equipment to be used on the barge, including the size and direction of amplified sound equipment such as speakers, and the circumstances under which the roof is to be closed. The procedure must include details on complaint management.
  7. Final Mooring Design Drawings required under **Condition 10** must demonstrate the mooring is designed for 1 in 100 year flood events, and is of environmentally friendly design.
  8. The Moored Barge Contingency Plan required under **Condition 11** is to discuss procedures for the removal of the barge from Perth Water in storm and flood events anticipated to be greater than 1 in 100 years.
  9. The Traffic Management Plan required under **Condition 12** must be endorsed by the City of Perth prior to submission to the Department of Parks and Wildlife.  
  
The plan is to give due consideration to the impact of the development on parking, pedestrian and cycle traffic and public transport.
  10. The Fuel Storage and Refuelling Management Plan required under **Condition 13** must detail:
    - a. the transfer of fuel from Barrack Street Jetty to the transfer vessel, and the subsequent transfer to the barge;
    - b. fuel storage on the transfer vessel and barge;
    - c. an assessment of the risk of discharge to the environment at each stage of fuel transfer and storage, and appropriate mitigation strategies for each risk to ensure the water quality of the Swan River is protected.
  11. The Waste Management Plan required under **Condition 14** must be endorsed by the City of Perth prior to submission to the Department of Parks and Wildlife.

The plan must include, but not necessarily be limited to:

- a. calculations of waste estimated to be produced by each type of event, including solid and liquid effluent waste, solid putrescible waste, solid recyclable waste, grease trap waste, sanitary waste, marine oils and lubricants;
  - b. details for on-board management of kitchen and bar waste;
  - c. details of storage and wash down facilities for bins (both recyclables and general waste) at Barrack Street Jetty;
  - d. details of the transfer of waste, both liquid and solid, from the barge to transfer vessel, and from transfer vessel to Barrack Street Jetty;
  - e. waste disposal and collection strategy for Barrack Street Jetty demonstrating how these facilities will be serviced;
  - f. a risk assessment of discharges to the environment at each stage of waste management and transfer, and proposed mitigation strategies for each risk to ensure the protection of water quality of the Swan River.
12. The Construction Environmental Management Plan required under **Condition 15** is to address the risk of pollution, contamination and any other environmental impacts causing detrimental impact on water quality of the Swan River, from the construction of the moorings.

The plan is to address, but not be limited to:

- scope of works;
- site access;
- machinery, equipment and materials to be used;
- management of machinery or other equipment (e.g. refuelling, storage, maintenance);
- methodology for installation of mooring;
- means of protecting the waterway from inputs of deleterious matter;
- sediment management during construction;
- public and vehicle access;
- waste management;
- schedule of works, hours of operation and responsibilities; and
- complaints and incidents.

In the event of a sediment plume or hazardous spill in the river, this should be reported to the Department of Parks and Wildlife on 9219 9000 or a/h 0419 192 845.

- a. survey seagrass, macroalgae and benthic habitat in the immediate vicinity of the works;
  - b. survey aquatic fauna in the local environment;
  - c. characterise the quality of sediment and water within the vicinity of the works;
  - d. Establish an Environmental Management System to mitigate and manage potential impacts on the surrounding environment from the operation of the barge and moorings.
13. The Sampling and Survey Program required under **Condition 16** should be designed to include ongoing water and sediment sampling and seagrass, microalgae and benthic habitat surveys to assess:
- a. the impact of patron transport vessel movements and the operation of the moorings and barge on dolphin behaviour in the area;



- b. the impact of artificial lighting on the barge on fish behaviour and the natural biological regimes of the river;
- c. the build-up of antifouling in the surrounding sediment and build-up of deleterious matter in the surrounding environment; and
- d. the impact of the operation of the barge and moorings, including maintenance, on sediment and water quality.

The Site Investigation and Sampling and Survey Program should be designed and conducted on advice from the Department of Parks and Wildlife.

14. The Lighting Plan required under **Condition 17** is to include detail on:
- a. navigational lighting (to be endorsed by Department of Transport and the Australian Maritime Safety Authority, if required);
  - b. lighting to be used for each function type, including wattage and direction, and validation that it is fit for purpose.

The plan should demonstrate lighting will not adversely impact the amenity of the area.

15. If granted a River Reserve Lease, the applicant will be required to prepare, implement and maintain an Environmental Management System, site specific safety procedures and an emergency management plan as part of the terms of the lease agreement.
16. A review of the Noise Management Plan required under **Condition 24** must occur 12 months after commencement of operation of the barge, including a summary of the noise monitoring results, complaints, and an assessment of the suitability of noise mitigation strategies. A report on the review of the Noise Management Plan is to be submitted to the Department of Parks and Wildlife for review and comment.
17. With reference to **Condition 25**, reporting on the findings of the Sampling and Survey Program is to be submitted to the Department of Parks and Wildlife annually in accordance with the Sampling and Survey Program approved under **Condition 16**.

Reporting is to include:

- a. a summary of the monitoring results;
  - b. an assessment of the suitability of the environmental management strategies; and
  - c. amendments to the Environmental Management System, if required.
18. To allow sufficient time for the Department of Parks and Wildlife to consider and approve the drawings, designs and plans required under **Conditions 5 to 17** inclusive, the documents should be submitted to the Department of Parks and Wildlife no later than 30 days prior to the expected commencement date.
19. The applicant is advised to contact the Department of Aboriginal Affairs to ensure that the proposed works do not breach any section of Part IV (Protection of Indigenous Sites) of the *Aboriginal Heritage Act 1972*.

**FINAL REPORT ENDORSED**

Signed: \_\_\_\_\_

Jim Sharp  
Director General



Date: \_\_\_\_\_



27.6.17





**Legend**

 Old Salt Barge Actual     Swan River Trust - DCA

  
 1:7,500 (A3)  
 0 50 100 150 200 250 m  
  
 Geographic Projection  
 Datum: GDA94



Produced by CM,  
Department of Parks and Wildlife



Department of  
Parks and Wildlife



Job Ref: 16/4503  
Produced at 11:06 AM on April 21, 2017

The Department of Parks and Wildlife does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence which may arise from relying on any information depicted. Roads and tracks on land managed by DPAW may contain unmarked hazards and their surface condition is variable. Exercise caution and drive to conditions on all roads.



## **OLD SALT CREATIVE MATERIALS**

### **1.0 THE VISION**

#### **1.1 Look and Feel**

### **2.0 TARGET MARKET**

### **3.0 EVENT LAYOUT**

#### **3.1 Canvas Arrangements of Old Salt**

#### **3.2 Safety, Noise and Wind**

### **4.0 DEISGN MOCKS**

#### **4.1 Logo Design**

#### **4.2 Interior Design**

### **5.0 MATERIALS**

#### **5.1 Colour/ Texture Palette**

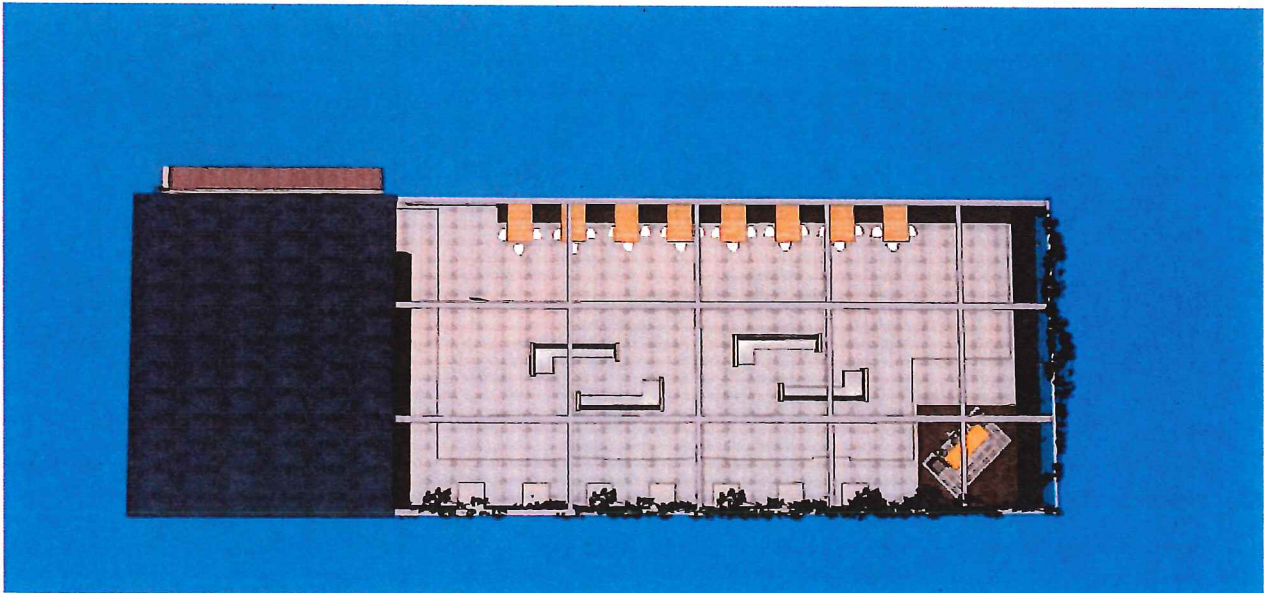
## 1.0 THE VISION

*An Old Salt is a teller of great sea stories. We envisage some of Australia's most memorable events and stories to take place on board Old Salt Perth.*

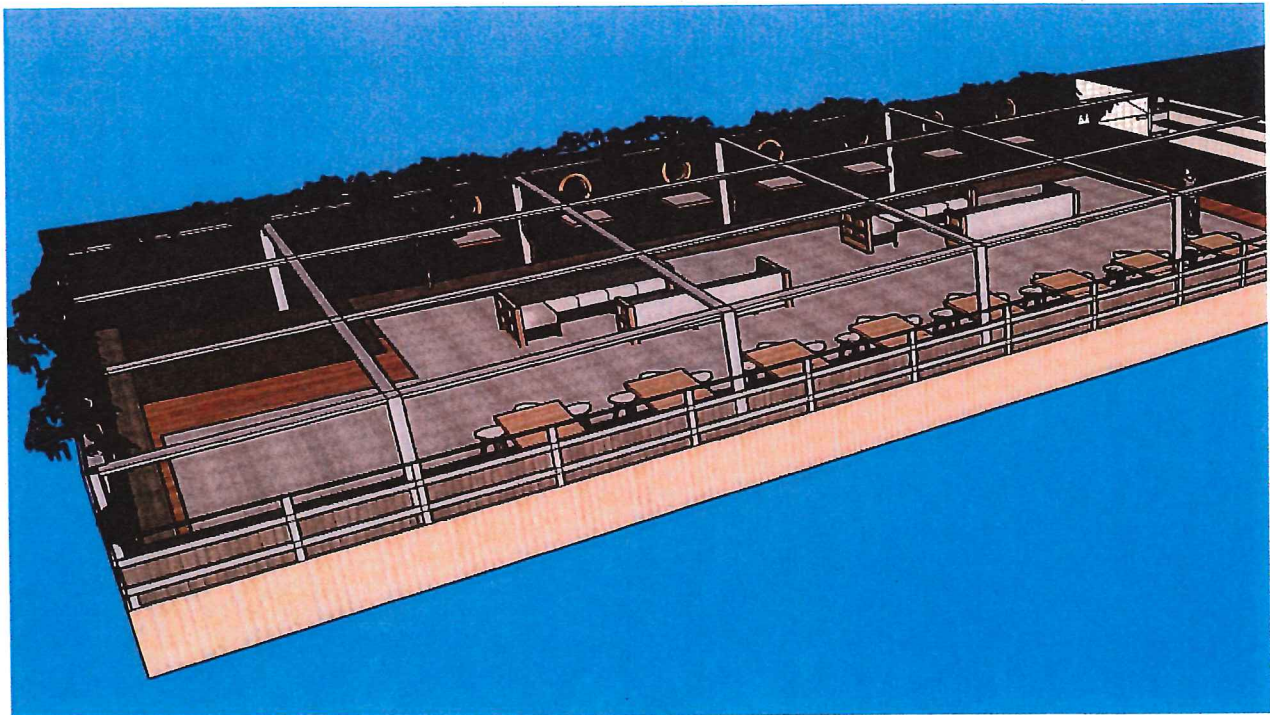
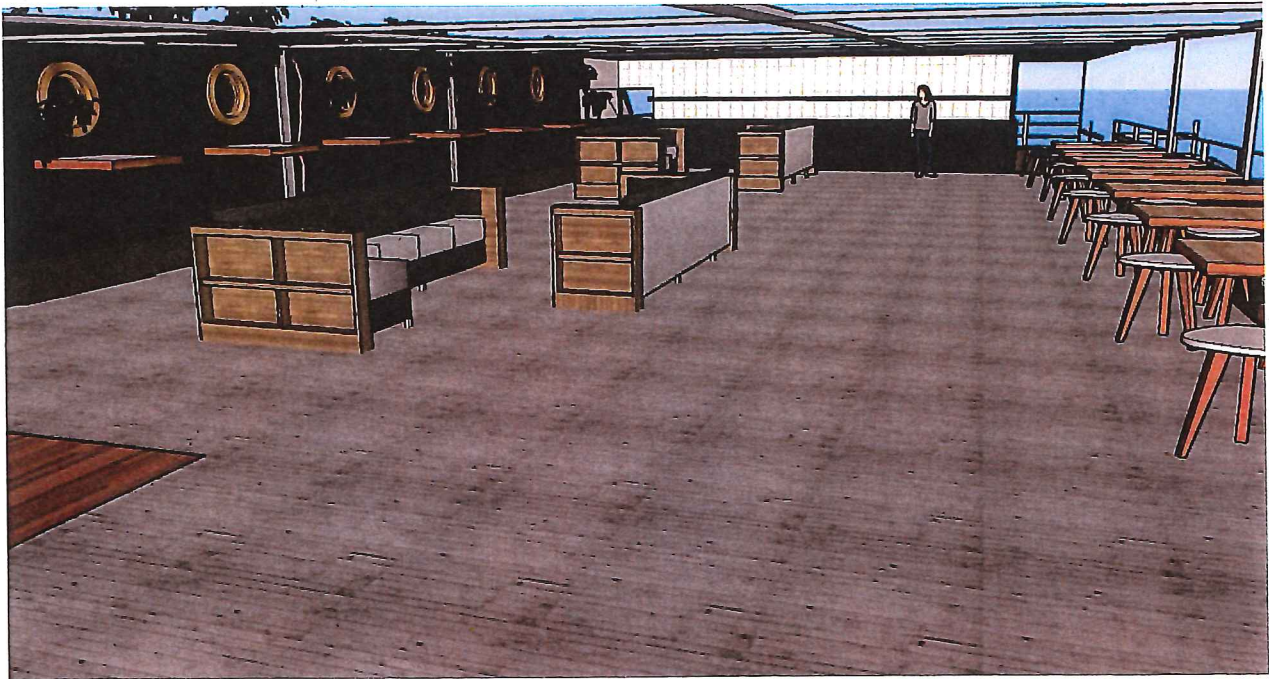
Our team has been running a variety of events on the East Coast of Australia, from food pop-ups, light festivals, markets, music gigs and corporate events. All of these require a blank canvas that allows for varying ideas and visions to be executed simply, without the limitations of existing frameworks and design. As such, we have found that minimalist spaces are fantastic for this type of functionality and integral for successful pop-up concepts in order to generate buzz and create unique and memorable entertainment.

### 1.1 Look and Feel

The 250 capacity venue will act to compliment the surrounding venues and landscapes on the Swan River and at Elizabeth Quay through its modest and minimalist design. The venue itself is a single tier, permanently moored deck, designed with a conservative vision and colour scheme. The design, from branding to build, came from truly understanding the vision and diversities of what 'Old Salt' is. With ongoing collaboration from experienced architects, art directors, designers, noise and wind specialists, the team have created a complete vision that will act to compliment the Elizabeth Quay Development.







## 2.0 TARGET MARKET

The physical age, gender and occupation of our target market will alter from event to event, however the key psychological attribute of the audience will be similar. The desired market encompasses a group of people that want to experience all things new. This demographic are the explorers, pioneers and creators. This will be a combination of Perth locals and international tourists, both looking to experience the best of what Perth has to offer: beautiful open landscapes, sunshine, blue waters and world class entertainment.


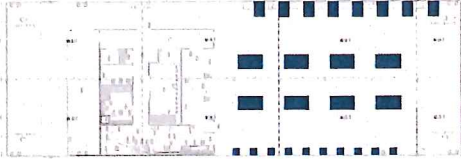


- 25 - 45, young professional and young family, disposable income, style oriented, experience seeking and conceptually early adopting
- Local - First time visitation from the experience seeking segment, combined with repeat visitation from seasoned locals who are seeking a relaxed bar/event space/entertainment option in an accessible and unique location
- Intrastate - Visitors who may have cause to visit Perth for a holiday or to visit a newly developed precinct will be targeted through a casual and unique entertainment offering
- Interstate - Building on the successful execution of floating venues on the East Coast, Interstate visitors will align this concept with the success of events on the water, with the already renowned climate of Perth
- International - The experience seeking segment of Asian Markets who are pursuing a breathtaking and authentic representation of Perth

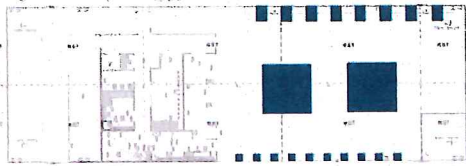
### 3.0 EVENT LAYOUT

The type of events held on Old Salt vary from intimate creative work-shops, to sophisticated weddings. Therefore, the entire vision allows for each event to easily pop-up without too much permanent infrastructure on board. The space has a sole focus on minimalism with the philosophy of being able to add items to the space, rather than the need to take them away. The three layouts below demonstrate typical furniture arrangements for each event. The proposition is for any event, big or small, sophisticated or casual, to feel as though the venue space was made for the sole purpose of catering for that specific event.

#### 3.1 Canvas Arrangements of Old Salt

EVENT TYPE	CAPACITIES	LAYOUT
<p><b>Creative Workshops</b> <b>Live Music</b></p>	<p><b>50 Seating</b> <b>150 Standing</b></p>	
<p><b>Weddings</b> <b>Brunch</b></p>	<p><b>150 Seating</b></p>	



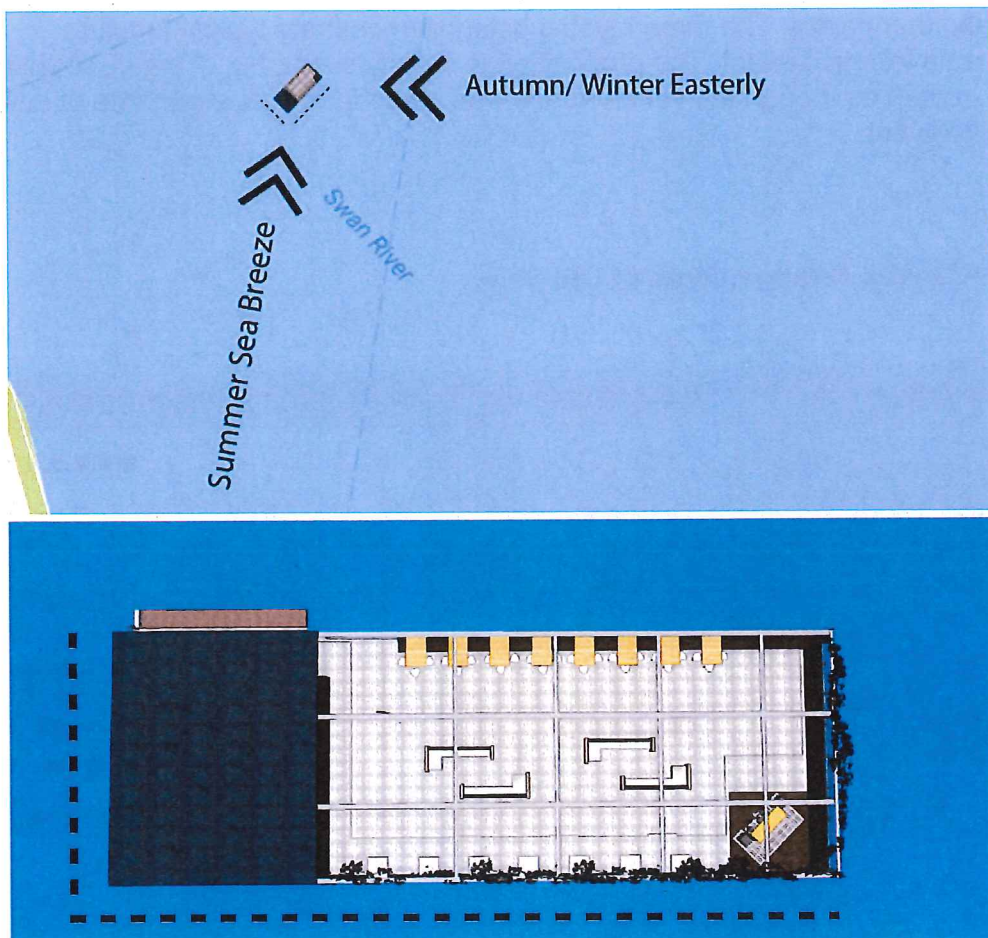
EVENT TYPE	CAPACITIES	LAYOUT
Casual Beach Club Days	100 Seating 150 Standing	

### 3.2 Safety, Noise and Wind

The venue will be fully closed with non-climbable wood railing around the entire parameters of the venue. The open floor plan allows for the crew complement and additional security to have unobstructed line of sight throughout the venue space.

Wind and noise were front of mind throughout the entire design process to avoid discomfort for both our patrons and residents of Elizabeth Quay, South Perth and surrounding areas. The Old Salt team is working with our architects, MMD, and various design bodies to ensure the fundamental structure can withstand worst case weather.

Additionally, as previously discussed, we have worked with Lloyd George Acoustics to ensure we have met all necessary criteria within our proposed design to reduce noise emissions. The dotted lines in the diagrams below represent solid enclosed sides for safety, wind and noise minimisation.



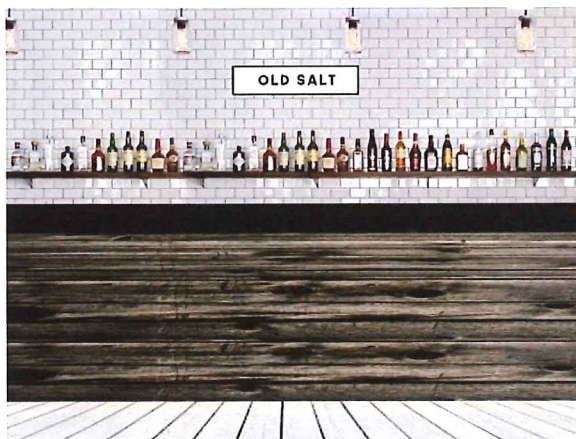
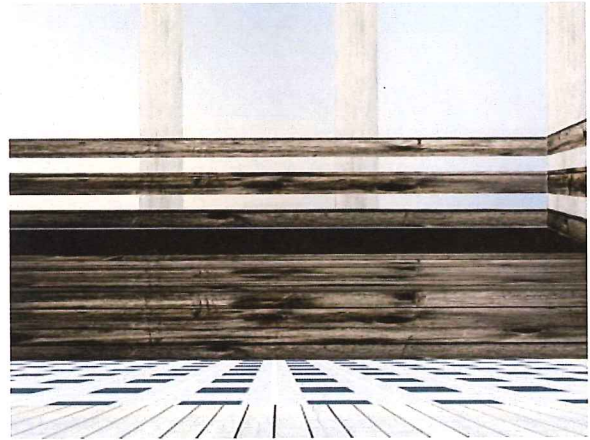
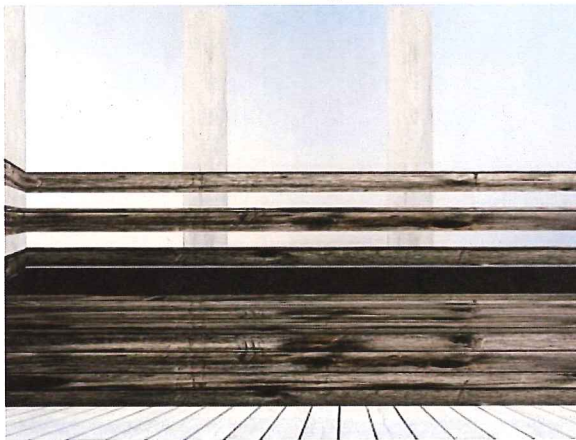
## 4.0 DESIGN MOCKS

The term 'Nordic design' combines the three pillars of simplicity, minimalism and functionality encompasses the vision of Old Salt. This has been followed strictly to adhere to all necessary components of the Department of Parks and Wildlife's policies regarding structures that blend with the surrounding landscape and are not intrusive on the naked eye when viewed from surrounding vantage points. From all possible points (South Perth, Kings Park, Elizabeth Quay, the Narrows) we have designed Old Salt to be a part of the landscape.

### 4.1 Logo Design

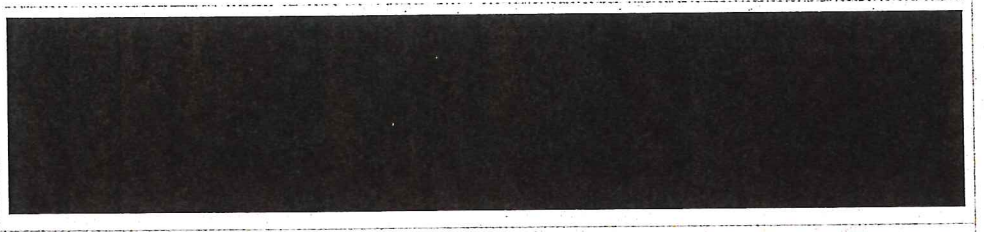
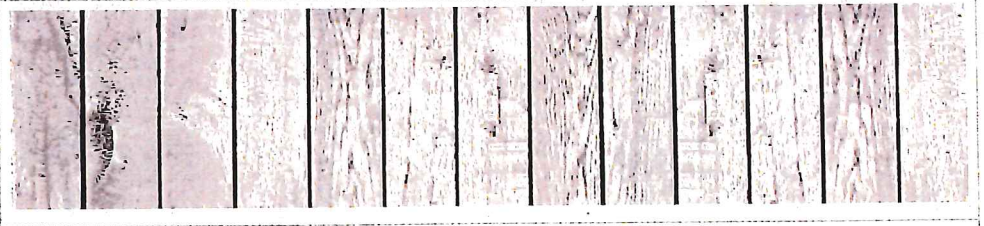
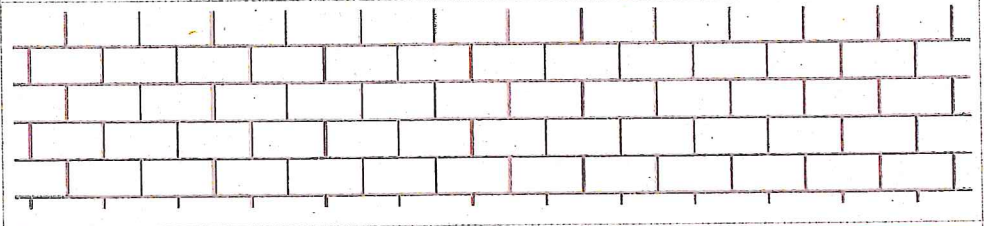
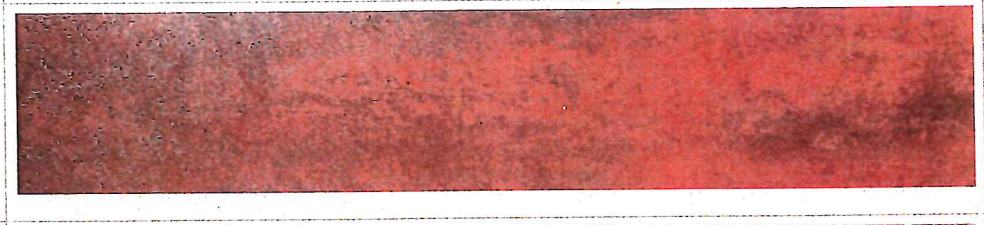
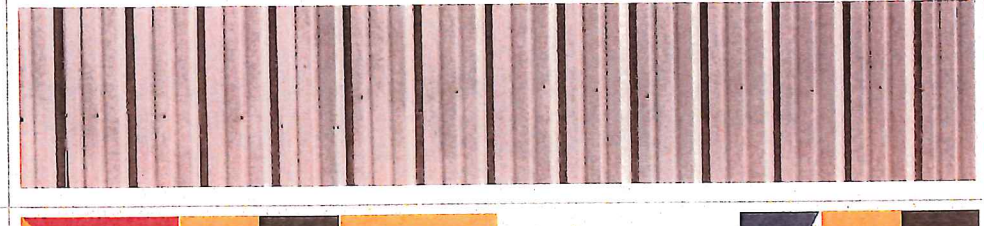
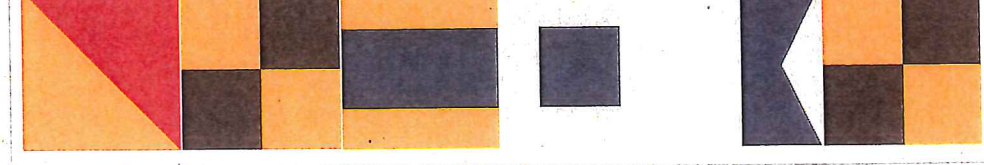
# OLD SALT

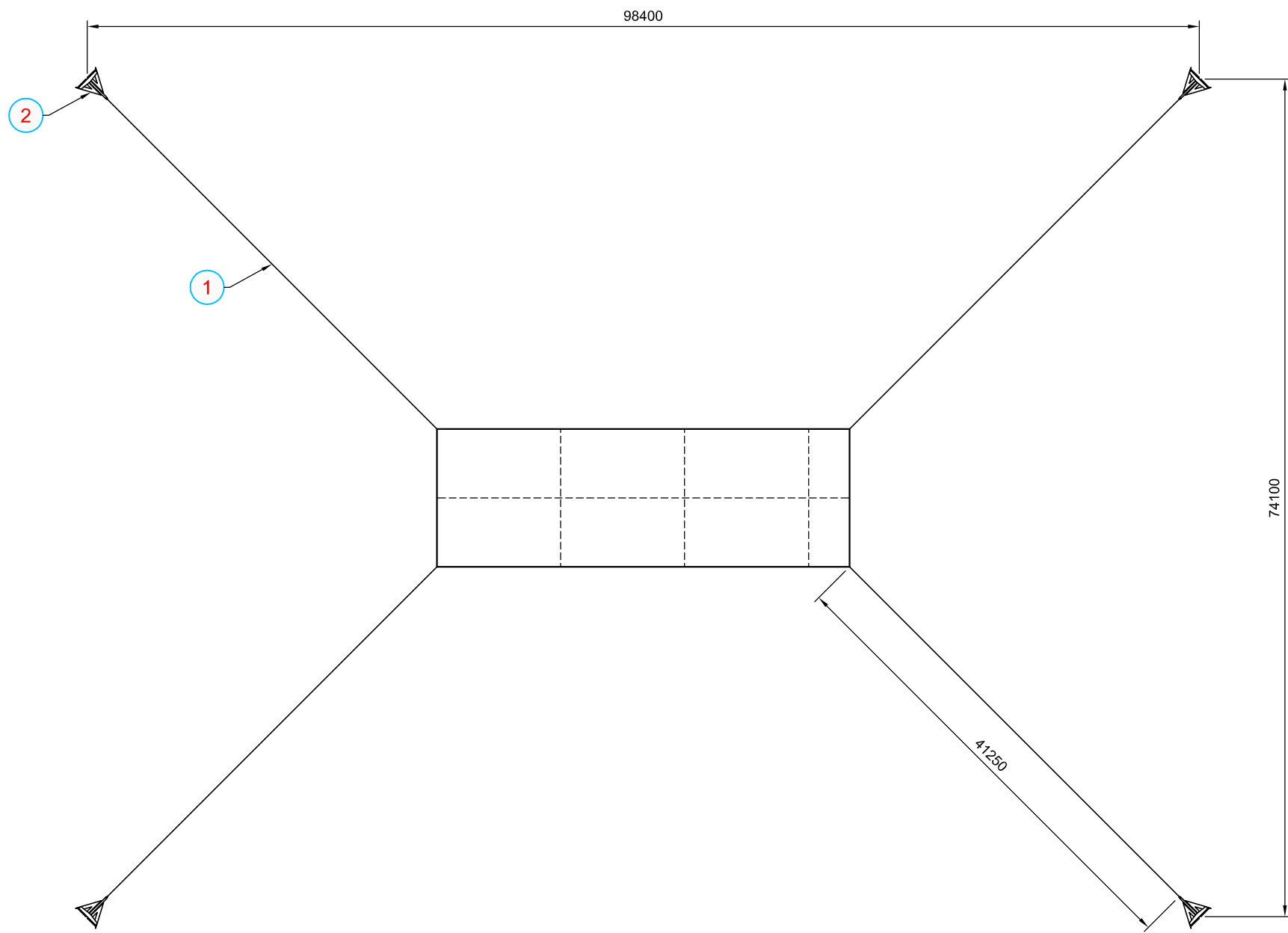
### 4.2 Interior Design





## 5.0 MATERIALS

Wooden side wall and parameter fencing	
Wooden decking	
Tiled splashback for service area and bathroom	
Highlighted minimal aspects of design. Taps, Lights etc.	
Corrugated tin side wall	
Overall colour scheme for branding and small touches throughout	



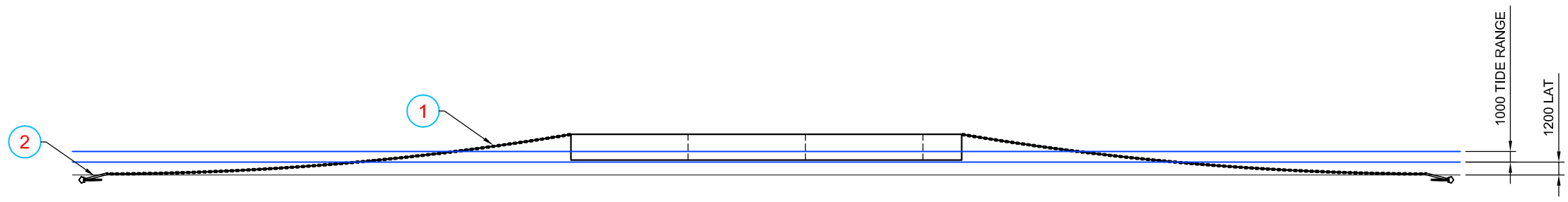
PLAN VIEW

MOORING EQUIPMENT		
ITEM No.	DESCRIPTION	QTY.
1	41.25m (1.5 SHOTS) x 64mm GRADE U2 S.L.C.	4
2	1.5t FLIPPER DELTA ANCHOR	4

**GENERAL NOTES**

- ALL DIMENSIONS IN mm U.N.O.

PRELIMINARY  
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PROFILE

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REV.	DETAILS	COMMENT	D.F.	S.C.	08-11-16
A	PRELIMINARY ISSUE				
		STATUS	DRW	CHK	DATE



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PROJECT	ENTERTAINMENT BARGE ELIZABETH QUAY		
TITLE	PRELIMINARY MOORING ARRANGEMENT		
CLIENT	OLD SALT PERTH PTY LTD		
SCALE	1:500	A3	DRAWING No. 16178-900
REV.	A		

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